THE USE OF LOAN CREDIT IN MODERN BUSINESS

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THE USE OF LOAN CREDIT IN MODERN BUSINESS

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THERE is no intention here to offer a restatement of the general theory of credit, but merely to discuss certain features of the use of credit peculiarly relevant to the conduct of modern business. The subject of inquiry is the resort to credit as an expedient in the quest of profits. The larger, and in some relations perhaps the more important, aspects of credit are accordingly not touched on here, except so far as seems indispensable to the theory of that business traffic upon which the inquiry centers. The inquiry, therefore, turns about the business motives that lead to an extensive use of credit and about certain of the general consequences which credit extension has for the course of business affairs and for the working of the modern industrial system. Such points of the theory of credit at large as unavoidably come into the discussion are passed in review in the most summary manner. Familiarity with the terms and concepts employed is presumed to the extent necessary to follow the discussion.

The thesis is advisedly accepted, by men of affairs as well as by economists, that the use of credit is indispensable to a facile working of the modern industrial system. It may be added without hesitation that such use is also unavoidable under modern circumstances. The extensive use of credit follows necessarily from business competition. Credit serves two main uses in the regular course of such business as is occupied with the conduct of industry: (*a*) that of deferred payments in the purchase and sale of goods — book accounts, bills, checks, and the like belong chiefly under this head; and (*b*) loans or debts—notes, stock shares, interest-bearing securities, deposits, call loans, etc., belong chiefly here. These two categories of credit extension are by no means clearly distinct. Forms of credit which commonly serve the one purpose may be turned to the other use; but the two uses of credit are, after all, broadly distinguishable. For many purposes of economic theory such a distinction might not be serviceable, or even practicable; it is here made merely for present use. It is chiefly with credits of the latter class, or rather with credit in so far as it is turned to use for the latter purpose, that this inquiry is concerned.

The most obvious service of loan credit, to which attention is frequently directed, in this connection is that by its use the discretionary control of industrial property is transferred from owners who do not want to manage it to other business-men who wish to assume the management. Seen from the standpoint of the industrial process at large such a transfer may commonly be construed, without violence, as a transfer of management to more competent hands. To the extent to which this is the case there results a presumptive gain in industrial efficiency at large; the consequent advan-

tage to the community is patent, as are also the advantages which result to the borrower or the organizer of any enterprise to which such advances of capital are invited.

But it is to be noted that the business-man does not put his purposes in these terms in seeking an extension of credit, nor need such an extension serve simply this end of shifting the management of the material equipment of industry to more competent or more willing hands. If that were the extent of the functioning of loan credit in industry it would be wholly gratuitous, as well as presumptuous, to offer a discussion of the subject in this place, since that function of credit has been well and largely discussed by many competent economists.[1] This may be the most important function of loan credit, but for the purpose in hand its functioning beyond or aside from this, its main service, is of more immediate interest. That it has substantial consequences of a different kind becomes particularly evident in a period of acute liquidation. At such a time the inconveniences, not to say the disastrous effects, of a large extension of loan credit attract general attention. These disadvantageous consequences, in the way of panic, insolvency, etc., are commonly said to come of an "undue," "abnormal," "excessive," or "illegitimate" extension of credit during that period of speculative advance which commonly precedes the liquidation. But there is no hard and fast line to be drawn between "due" and "undue," or "normal" and "abnormal," extensions of loan credit,[2] as regards either the motives of the borrowers, the methods by which the transactions are carried through, the kind of collateral, or the uses to which the borrowed funds are turned. There may be a somewhat consistent difference on one or more of these points between items which are well within the limits of legitimacy, on the one hand, and of illegitimacy, on the other hand, but the two categories shade off into one another by insensible gradations. Not only that, but with respect to a very appreciable proportion of the items the question as to whether they are an "excessive" extension of credit can be answered only in the light of subsequent facts. If, at a period of liquidation, a given item of loan credit ends its life-history in insolvency, then it was excessive or illegitimate; if not, then it was not. The question of excessiveness, therefore, may, and in the case of an appreciable proportion of loan-credit items it probably does, depend on circumstances of an essentially fortuitous character and which could, therefore, not be foreseen. The "excessive" or undue extension follows as a continuation of the conservative or moderate resort to credit, as a simple progressive change in magnitude, without its being possible to specify a point in the progression beyond which there comes a change in kind. The ulterior test of undueness is insolvency, which is not the result of a given arithmetical proportion of indebtedness to assets, simply, but is an eventuality conditioned by other circumstances as well. Circumstances may change in such a way that a credit extension which was normal or legitimate at its inception will in the course of time become undue or abnormal; as, *e. g.*, if there supervenes a shrinkage

[1] *Cf.*, *e. g.*, KNIES, *Geld*, chap. iii; *Credit*, chap. ix; J. S. MILL, *Political Economy*, Book III, chap. xi.

[2] *Cf.* LAUGHLIN, "Credit," *Decennial Publications*, Vol. IV, pp. 22-4.

in the value of the collateral.[3] In detail, a given item of credit extension, resting on a given block of collateral, may conceivably be moderate one week, excessive the next week, and moderate again the next week after, owing simply to a fluctuation in the market value of the collateral, without the creditor or debtor having done anything to upset the balance; as will happen, *e. g.*, in the case of a call loan secured by stocks or similar collateral whose quotations fluctuate.

Looked at from this *post factum* standpoint, from which alone the question of an aggregate excessiveness can be confidently judged, the extension of credit is accounted "undue," "excessive," or "abnormal" in so far as the debtors are unable to repay loans falling due, and to pay interest on securities outstanding, without cutting into their paid-up capital or reducing their earnings much below a "reasonable" rate.[4]

The disastrous consequences of an undue extension of credit primarily affect business — the immediate consequence is a liquidation between business-men; secondarily, of course, the liquidation carries a serious disturbance to the industrial process proper. The incentives which determine the business-man's recourse to credit are of the same kind whether the resulting extension proves "excessive" or not. The question therefore becomes: What are the business incentives in the case, and why do these incentives carry the extension of credit to a length which the sequel proves to be undue or illegitimate? It is this question which is here sought to be answered.

Suppose due credit arrangements have already been made — in the way of investments in stocks, interest-bearing securities, and the like — such as to place the management of the industrial equipment in competent hands. This supposition is not a violent one, since a condition roughly approximating to this prevails in any quiescent period of industry, when there is no appreciable depression. Under these "normal" conditions, the capital invested in any given industrial venture is turned over within a certain approximately definite length of time. The length of time occupied by the turnover may vary from one establishment to another, but in any given case the length of the turnover is one of the important factors that determine the chances of gain for the business concern in question. Indeed, if the general conditions of the trade and of the market are given, the two factors which determine the status and value of a given sound concern, as seen from the business-man's standpoint, are the magnitude of the turnover and the length of time it occupies.

The business-man's object is to get the largest aggregate gain from his business. It is manifestly for his interest, as far as may be, to shorten the process out of which his earnings are drawn,[5] or, in other words, to shorten the period in which he turns

[3] *Ibid.*, p. 24.

[4] The question of "undueness" relates to a (varying) proportion between the credit extension and the capitalized value of the collateral, for the time being; it therefore relates to the presumptive earnings of the property represented by the collateral.—See pp. 11, 12, 16, n. 21, below.

[5] This, of course, has nothing to say to Böhm-Bawerk's theory of the enhancement of production through lengthening the processes of industry. His theory of the "round-about method" applies to the technical, material efficiency of the mechanical process; whereas the point in question here is the interval occupied in the turning over of a given business capital. Böhm-Bawerk's position may be questionable, however, on other grounds.

over his capital. If the turnover consumes less than the time ordinarily allowed in the line of industry in which he is engaged, he gains more than the current rate of profits in that line of business, other things equal; whereas he loses if the turnover takes more than the normal time. This fact is forcibly expressed in the maxim: "Small profits and quick returns." There are two chief means of shortening the interval of the turnover, currently resorted to in industrial business. The first is the adoption of more efficient, time-saving industrial processes. Improvements of technique having this in view are gaining in importance in the later developments of business, since a closer attention is now given to the time element in investments, and great advances have been made in this direction.[6] A second expedient for accelerating the rate of turnover is the competitive pushing of sales, through larger and more persistent advertising, and the like. It is needless to say that this means of accelerating business also receives due attention at the hands of modern business-men.

But the magnitude of the turnover, "the volume of business," is of no less consequence than its rapidity. It is, of course, a trite commonplace that the earnings of any industrial business are a joint function of the rate of turnover and the volume of business.[7] The business-man may reach his end of increased earnings by either the one or the other expedient, and he commonly has recourse to both if he can. His means of increasing the magnitude of the turnover is a resort to credit and a close husbanding of his assets. He is under a constant incentive to increase his liabilities and to discount his bills receivable. Indebtedness in this way comes to serve much the same purpose, as regards the rate of earnings, as does a time-saving improvement in the processes of industry.[8] The effect of the use of credit on the part of a business-man so placed is much the same as if his capital had been turned over a greater number of times in the year. It is accordingly to his interest to extend his credit as far as may be and as far as the state of the market will admit.[9]

But on funds obtained on credit the debtor has to pay interest, which, being deducted from the gross earnings of the business, leaves, as net gain due to his use of credit, only the amount by which the increment of gross earnings exceeds the interest charge. This sets a somewhat elastic limit to the advantageous use of loan credit in business. In ordinary times, however, and under capable management, the current rate of business earnings exceeds the rate of interest by an appreciable amount; and

[6] *Cf.*, *e. g.*, WERNER SOMBART, "Der Stil des modernen Wirthschaftslebens," *Archiv für soz. Gesetzg. u. Statistik*, Vol. XVII, pp. 1–20, especially pp. 4–15. Reprinted as chap. iv, Vol. II, of *Der moderne Kapitalismus* (Leipzig, 1902).

[7] *Cf.*, *e. g.*, MARSHALL, *Principles of Economics* (3d ed.), Book VI, chap. vii, secs. 3 and 4.

[8] *Cf.* LAUGHLIN, "Credit," p. 8.

[9] The turnover will count for more in gross earnings at current rates if instead of his own capital alone the business-man also engages whatever funds he can borrow by using his capital as collateral. The turnover counted on capital (value of the industrial equipment) plus credit, at current rates, will be greater than that counted on the capital alone used without credit extension. The turnover may be expressed as the product of the mass of values employed multiplied by the velocity. Hence, if credit be taken as an indeterminate fraction of the capital used as collateral, we may say that

$$\text{Turnover} = \frac{1}{\text{time}}\left(\text{capital} + \frac{\text{capital}}{n}\right); \text{ i. e.,}$$

$$T = \frac{1}{t}\left(c + \frac{c}{n}\right) = \frac{c + \frac{c}{n}}{t}; \text{ or } t = \frac{c + \frac{c}{n}}{T}$$

The algebraic statement serves to bring out the equivalence between an acceleration of the rate of turnover and an increase of the volume of business capital.

in times of ordinary prosperity, therefore, it is commonly advantageous to employ credit in the way indicated. Still more so in brisk times, when opportunities for earnings are many and promise to increase. To turn the proposition about, so as to show the run of business motives in the case: whenever the capable business manager sees an appreciable difference between the cost of a given credit extension and the gross increase of gains to be got by its use, he will seek to extend his credit. But under the régime of competitive business whatever is generally advantageous becomes a necessity to all competitors. Those who take advantage of the opportunities afforded by credit are in a position to undersell any others who are similarly placed in all but this respect. Broadly speaking, recourse to credit becomes the general practice, the regular course of competitive business management, and competition goes on on the basis of such a use of credit, as an auxiliary to the capital in hand. So that the competitive earning capacity of business enterprises comes to rest on the basis, not of paid-up capital alone, but of capital plus such borrowed funds as this capital will support. The competitive rate of earnings is brought to correspond with this basis of operation; the consequence being that under such competitive employment of credit the aggregate earnings of an enterprise resting on a given *bona fide* capital will be but slightly larger than it might have been if such a general recourse to credit to swell the volume of business did not prevail. But since such use of credit prevails, a further consequence is that any concern involved in the open business competition, which does not or cannot take recourse to credit to swell its volume of business, will be unable to earn a "reasonable" rate of profits. So that the general practice drives all competitors to the use of the same expedient; but since the advantage to be derived from this expedient is a relative advantage only, the universality of the practice results in but a slight, if any, increase of the aggregate earnings of the business community. Borrowed funds afford any given business-man a differential advantage as against other competitors; but it is, in the main, a differential advantage only. The competitive use of such borrowed funds in extending business operations may, incidentally, throw the management of some portion of the industrial process into more competent or less competent hands. So far as this happens, the credit operations in question and the use of the borrowed funds may increase or diminish the output of industry at large, and so may affect the aggregate earnings of the business community. But, apart from such individual shifting of the management of industry to more competent (or less competent) hands, this competitive use of borrowed funds is without aggregate effect.

The current or reasonable rate of profits is, roughly, the rate of profits at which business-men are content to employ the actual capital which they have in hand.[10] A general resort to credit extension as an auxiliary to the capital in hand results, on the whole, in a competitive lowering of the rate of profits, computed on capital plus credit, to such a point as would not be attractive to a business-man who must confine himself

[10] See MARSHALL, as above.

to the employment of capital without credit extension. On an average, it may be said, under the circumstances of this credit extension the aggregate earnings of the aggregate capital with credit extension are but slightly greater than the aggregate earnings of the same capital without credit extension would be in the absence of a competitive use of credit extension. But under modern conditions business cannot profitably be done by any one of the competitors without the customary resort to credit. Without the customary resort to credit a "reasonable" return could not be obtained on the investment.

All this applies to such extension of credit as exceeds what may serve the purpose of distributing the management of the industrial, material apparatus to competent hands; or, in other words, it applies to such resort to credit as aims at a competitive extension of business on the part of competent managers. Probably at no point in the progressive competitive extension of credit is there no effect had in the way of shifting the management of industry to more competent hands; and at no point, therefore, can it confidently be said that a further extension of credit has no effect in the way of enhancing the efficiency of industry. But, after all is said, it remains true that the extension of credit under modern conditions has the two distinguishable effects here spoken for; and this is the point of the argument.

To the extent to which the competitive recourse to credit is of the character here indicated — to the extent to which it is a competitive bidding for funds between competent managers — it may be said that, taken in the aggregate, the funds so added to business capital represent no material capital or "productive goods." They are business capital only; they swell the volume of business, as counted in terms of price, etc., but they do not directly swell the volume of industry, since they do not add to the aggregate material apparatus of industry, or alter the character of the processes employed, or enhance the degree of efficiency with which industry is managed.

The "buoyancy" which a speculative inflation of values gives to industrial business may indirectly increase the material output of industry by enhancing the intensity with which the industrial process is carried on under the added stimulus; but apart from this psychological effect, the expansion of business capital through credit extension has no aggregate industrial effect. This secondary effect of credit inflation may be very considerable, and is always present in brisk times. It is commonly obvious enough to be accounted the chief characteristic of a period of "prosperity." For a theory of industry this indirect effect of credit inflation would be its main characteristic, but for a theory of business it occupies the place of a corollary only.

To the view set forth above the objection may present itself that all funds borrowed represent property owned by someone (the lender or his creditors) and transferred, in usufruct, by the loan transaction to the borrower; and that these funds can, therefore, be converted to productive uses, like any other funds, by drawing into the industrial process, directly or indirectly, the material items of wealth whose fluent form these funds are. The objection fails at two points: (*a*) while the loans may be

covered by property held by the lender, they are not fully covered by property which is not already otherwise engaged; and even if such were the case, it would (*b*) not follow that the use of these funds would increase the technical (material) outfit of industry.

As to the first point (*a*): Loans made by the financial houses in the way of deposits or other advances on collateral are only to a fractional extent covered by liquid assets;[11] and anything but liquid assets is evidently beside the point of the present question. An inconsiderable fraction of these loans is represented by liquid assets. The greater part of the advances made by banking houses, for instance, rest on the lender's probable ability to pay eventually, on demand or at maturity, any claims that may in the course of business be presented against the lender on account of the advances made by him. It is a business truism that no banking house could at a moment meet all its outstanding obligations.[12] A necessary source of banking profits is the large excess of the volume of business over reserves.

As to (*b*): Another great part of the basis of such loans is made up of invested funds and collateral held by the lender. These at the same time are much of the basis on which rests the lender's probable ability to pay claims presented. But these investments, in industry or real estate, in interest-bearing securities and collateral of whatever description, represent future income of the lender's debtors (as, *e. g.*, government and municipal securities), or property which is already either engaged in the industrial process or tied up in forms of wealth (as, *e. g.*, real estate) which do not lend themselves to industrial uses. Loans obtained on property which has no present industrial use, which cannot in its present form or under existing circumstances be employed in the processes of industry (as, *e. g.*, speculative real estate), or loans on property which is already engaged in the industrial process (as, *e. g.*, stocks, industrial plant, goods on hand, real estate in use),[13] represent, for the purpose in hand, nothing more substantial than a fictitious duplication of material items that cannot be drawn into the industrial process. Therefore such loans cannot, at least not directly, swell the aggregate industrial apparatus or enhance the aggregate productivity of industry; for the items which here serve as collateral are already previously in use in industry to the extent to which they can be used. Property of these kinds—what is already in use in industry and what is not of use for industrial purposes—may be "coined into means of payment" and so made to serve as additional pecuniary (business) capital, but such property is mechanically incapable of serving as additional material (industrial) capital. To a very considerable extent the funds involved in these loans, therefore, have only a pecuniary (business) existence, not a material (industrial) one; and, so far as that is true, they represent, in the aggregate,

[11] Property convertible into cash at will.

[12] The legally obligatory reserve for national banks in this country, for instance, is 25 per cent. of combined note circulation and deposits in central reserve banks, 15 per cent. in others.—*Revised Statutes*, 5191.

[13] This takes account of advances made by other lenders than the regular banking houses who exclude mortgages on real estate from their collateral; such, *e. g.*, as the long-time advances (investments in securities) made by savings banks, insurance companies, minor private and mortgage banks, private lenders, etc.

only fictitious industrial equipment. Even such inconsiderable portion of them, however, as represents metallic reserves also adds nothing to the effective material apparatus of industry; since money as such, whether metallic or promissory, is of no direct industrial effect; as is evident from the well-known fact that the absolute quantity of the precious metals in use is a matter of no consequence to the conduct of either business or industry, so long as the quantity neither increases nor decreases by an appreciable amount. *Nummus nummum parere non potest.*

So that all advances made by banking houses or by other creditors in a like case; whether the advances are made on mortgage, collateral or personal notes, in the form of deposits, note issues, or what not; whether they are taken to represent the items of property covered by the collateral, the cash reserves of the banks, or the general solvency of the creditor or debtor — all these "advances" go to increase the "capital" of which business-men have the disposal; but for the material purposes of industry taken in the aggregate they are purely fictitious items.[14] Cash loans (such as savings-bank deposits[15] and the like) belong in the same category. All these advances afford the borrower a differential advantage in bidding against other business-men for the control and use of industrial processes and materials; they afford him a differential advantage in the distribution of the material means of industry; but they constitute no aggregate addition to the material means of industry at large. Funds of whatever character are a pecuniary fact, not an industrial one; they serve the distribution of the control of industry only, not its mechanically productive work.

Loan credit in excess of what may serve to transfer the management of industrial materials from the owner to a more competent user — that is to say, in so far as it is not, in effect, of the nature of a lease of industrial plant — serves on the whole not to increase the quantity of the material means of industry nor, directly, to enhance the effectiveness of their use; but, taken in the aggregate, it serves only to widen the discrepancy between business capital and industrial equipment. So long as times are brisk this discrepancy ordinarily goes on widening through a progressive extension of credit. Funds obtained on credit are applied to extend the business; competing business-men bid up the material items of industrial equipment by the use of funds so obtained; the value of the material items employed in industry advances; the aggregate of values employed in a given undertaking increases, with or without a physical increase of the industrial material engaged; but since an advance of credit rests on the collateral as expressed in terms of value, an enhanced value of the property affords a basis for a further extension of credit, and so on.

Now, the base line of business transactions is the money value (market or exchange value, price) of the items involved, not their material efficiency. The value of the money unit is by conventional usage held to be invariable, and the lenders

[14] This truism is frequently overlooked in theoretical discussions; hence, as the present argument requires its due recognition, it is here stated in this explicit way.

[15] The cash loans made by depositors to savings banks in the form of deposits.

perforce proceed on this assumption, so long as they proceed at all.[16] Consequently any increase of the aggregate money values involved in the industrial business enterprises concerned will afford a basis for an extension of loans, indistinguishable from any other basis of capitalized value, even if the increase of capitalized values is due to credit advances previously made on the full cash value of the property hypothecated. The extension of loans on collateral, such as stock and similar values involved in industrial business, has therefore in the nature of things a cumulative character. This cumulative extension goes on, if otherwise undisturbed, so long as no adverse price phenomenon obtrudes itself with sufficient force to convict this cumulative enhancement of capitalized values of imbecility. The extension of credit proceeds on the putative stability of the money value of the capitalized industrial material, whose money value is cumulatively augmented by this extension itself. But the money value of the collateral is at the same time the capitalized value of the property computed on the basis of its presumptive earning capacity. These two methods of rating the value of collateral must approximately coincide, if the capitalization is to afford a stable basis for credit; and when an obvious discrepancy arises between the outcome given by the two ratings, then a re-rating will be had in which the rating on the basis of earning capacity must be accepted as definitive, since earnings are the ground fact about which all business transactions turn and to which all business enterprise converges. A manifest discrepancy presently arises in this way between the aggregate nominal capital (capital plus loans) engaged in business, on the one hand, and the actual rate of earning capacity of this business capital, on the other hand; and when this discrepancy has become patent a period of liquidation begins.

To give an easier view of the part played by loan credit in this discrepancy between the business capital and the earning capacity of industrial concerns, it will be in place to indicate more summarily what are the factors at play.

The earnings of the business community, taken as a whole, are derived from the marketable output of goods and services turned out by the industrial process—disregarding such earnings as accrue to one concern merely at the cost of another. The effective industrial capital, from the use of which this output, and therefore these earnings, arise, is the aggregate of capitalized material items actually engaged in industry. The business capital, on the other hand, is made up of this capitalized industrial material, plus good-will, plus whatever funds are obtained on credit by using this capitalized industrial material as collateral, plus funds obtained on other, non-industrial, property used as collateral. Through the competitive use of funds obtained on credit, as spoken of above, the nominal value of the capitalized industrial material is cumulatively augmented so as to make it approximately equal to its original capitalization plus

[16] Few perhaps would in set terms maintain an argument that the value of money does not vary, but still fewer would, in a credit transaction, proceed on a supposition at variance with that position. As the economists are accustomed to say, money is the standard of deferred payments. It is also, in the unreflecting apprehension of those who have practically to deal with wealth phenomena, felt to be the standard and inflexible measure of wealth. The fact that this conventional usage is embodied in law acts greatly to fortify the naïve acceptance of money and price as the definitive terms of wealth.

whatever funds are obtained on credit of all kinds. On this basis of an expanded collateral a further extension of credit takes place, and the funds so obtained are incorporated in the business capital and turned to the like competitive use, and so on. Capital and earnings are counted in terms of the money unit. Counted in these terms, the earnings (industrial output) are also increased by the process of inflation through credit, since the competitive use of funds spoken of acts to bid up prices of whatever products are used in industry, and of whatever speculative property is presumed to have some eventual industrial use. But the nominal magnitude (value) of the earnings is not increased in as strong a ratio as that of the business capital; since the demand whereby the values of the output are regulated is not altogether a business demand (for productive goods), but is in great part, and, indeed, in the last resort mainly, reducible to a consumptive demand for finished goods.[17]

Looking at credit extension and its use for purposes of capital as a whole, the outcome which presents itself most strikingly at a period of liquidation is the redistribution of the ownership of industrial property. The funds obtained on credit are in great measure invested competitively in the same aggregate of material items that is already employed in industry apart from any use of loan credit, with the result that the same range of items of wealth are rated at a larger number of money units. In these items of wealth — which, apart from the use of credit, are owned by their nominal owners — the creditors, by virtue of the credit extension, come to own an undivided interest proportioned to the advances which they have made. The aggregate of these items of property comes hereby to be potentially owned by the creditors in approximately the proportion which the loans bear to the collateral plus the loans. The outcome of credit extension, in this respect, is a situation in which the creditors have become potential owners of such a fraction of the industrial equipment as would be represented by the formula $\frac{\text{loans}}{\text{capitalization } (= \text{collateral} + \text{loans})}$.[18] In a period of

[17] The market value of the output does not, in fact, keep pace with the inflation of business capital during a period of speculative advance. In order that it should do so, and afford nominal earnings proportionate to the inflated capital, it would be necessary that incomes should increase proportionately to the inflation of capital; but, even if this happened, the expenses of production would thereby be so increased (through the advance of wages and the like) as to offset the entire inflation of values for all consumptive goods and leave only the advance in the values of productive goods as a net margin from which to draw an increase of earnings. The discrepancy under discussion, however, is not due entirely to the presence of credit, and a fully detailed analysis of the causes out of which it arises can, therefore, not properly be presented in this place.

[18] So long as the rating of the capitalized property remains undisturbed, the formula which expresses the creditors' claim maintains the form given above. It then signifies nothing more than that the creditors hold a claim on such a proportion of the aggregate capitalized property involved as their advances bear to the aggregate capitalization. But so soon as a re-rating of the capitalized property enters the problem the formula becomes

$$\frac{\text{loans}}{\text{capitalization} + \Delta\,\text{capitalization}}$$

or

$$\frac{\text{loans}}{\text{capitalization} - \Delta\,\text{capitalization}},$$

according as the re-rating of capitalization is in the direction of enhancement or depreciation: $\frac{1}{\text{cap} + \Delta\,\text{cap}}$ or $\frac{1}{\text{cap} - \Delta\,\text{cap}}$. During brisk times, when capitalization advances, the claim represented by a given loan covers a decreasing proportion of the aggregate capitalized property involved $\left(\frac{1}{\text{cap} + \Delta\,\text{cap}}\right)$; the denominator increases and the quotient consequently decreases. Whereas, in a period of liquidation the ratio of the creditors' claim to the aggregate capitalization increases by force of the lowered rating of the capitalized property $\left(\frac{1}{\text{cap} - \Delta\,\text{cap}}\right)$; the quotient increases because the denominator decreases. The numerator remains constant.

liquidation this potential ownership on the part of the creditors takes effect to the extent to which the liquidation is carried through.[19] The precise measure and proportion in which the industrial property of the business community passes into the hands of the creditors in a period of liquidation can of course not be specified; it depends on the degree of shrinkage in values, as well as on the degree of thoroughness with which the liquidation is carried out, and perhaps on other still less ascertainable causes, among which is the degree of closeness of organization of the business community. It is, however, through the shrinkage of market values of the output and the industrial plant that the transfer of ownership to the creditor class takes place. In case no shrinkage of values took place, no such general transfer of ownership to the creditors as a class would become evident.

In point of fact, the shrinkage commonly supervenes, in the course of modern business, when a general liquidation comes; although it is readily conceivable that the period of acute liquidation and its attendant shrinkage of values need not supervene. Such would probably be the case in the absence of competitive investment in industrial material on a large scale. Secondary effects, such as perturbations of the rate of interest, insolvency, forced sales, and the like, need scarcely be taken up here, although it may be well to keep in mind that these secondary effects are commonly very considerable and far-reaching, and that they may in specific instances very materially affect the outcome.

The theoretical result of this summary sketch of loan credit in modern business, so far, seems to be: (*a*) an extension of loan credit beyond that involved in the transference of productive goods from their owners to more competent users is unavoidable under the régime of competitive business; (*b*) such a use of credit does not add to the aggregate of industrially productive equipment nor increase its material output of product, and therefore it does not add materially to the aggregate gross earnings obtained by the body of business-men engaged in industry, as counted in terms of material wealth or of permanent values;[20] (*c*) it diminishes the aggregate net profits obtained by the business-men engaged in industry as counted in such terms, in that it requires them to pay interest, to creditors outside the industrial process proper, on funds which, taken as an aggregate, represent no productive goods and have no aggregate productive effect; (*d*) there results an overrating of the aggregate capital engaged in industry, compared with the value of the industrial equipment at the starting-point, by approximately the amount of the aggregate deposits and loans on collateral; (*e*) the overrating swells the business capital, thereby raises the valuation of collateral, and gives rise to a further extension of credit, with further results of a like nature; (*f*) commonly beginning at some point where the extension of credit is exceptionally large in proportion to the material substratum of productive goods, or where the discrepancy between nominal capital and earning capacity is exceptionally wide,

[19] All those who, at a period of liquidation, are holders of fluent funds or of claims to fixed sums of money are, for the present purpose, in the position of creditors.

[20] This disregards the indirect effects of a speculative advance in the way of heightened intensity of application and fuller employment of the industrial plant.

the overrating is presently recognized by the creditor and a settlement ensues; (*g*) on the consequent withdrawal of credit a forced re-rating of the aggregate capital follows, bringing the nominal aggregate into approximate accord with the facts of earning capacity; (*h*) the shrinkage which takes place in reducing the aggregate rating of business capital from the basis of capital goods plus loans to the basis of capital goods alone, takes place at the expense of debtors and nominal owners of industrial equipment, in so far as they are solvent; (*i*) in the period of liquidation the gain represented by the credit inflation goes to the creditors and claimants of funds outside the industrial process proper, except that whatever is canceled in bad debts is written off; (*j*) apart from secondary effects, such as heightened efficiency of industry due to inflated values, changes of the rate of interest, insolvency, etc., the main final outcome is a redistribution of the ownership of property whereby the creditor class, including holders and claimants of funds, is benefited.

This characterization is intended to apply only to what may be called an "undue" extension of credit, and has nothing to say as to the substantial benefits derived by the business community from what may, by contrast, be called a "due" extension of credit. Neither does it imply deprecation of the use of "undue" credit in business. The view here spoken for plainly involves the position that there is always present, in ordinary times, some appreciable amount of loan credit of this "undue" or "abnormal" character. In brisk times the proportion of such undue credit is large and commonly increases progressively. But the extension of credit need not take on the cumulative character which it bears during a period of speculative advance, or "rising prosperity," unless some effective disturbance of prices and of the market outlook comes in to heighten the incentives that lead business-men to compete for loans. In other words, there seems to be some ill-defined point of equilibrium between prices, earning capacity of capital, interest, and loan credit; and when this equilibrium is seriously disturbed a cumulative extension of credits of an "undue" character is likely to follow. An effective disturbance of the equilibrium, such as is designated by the phrase "brisk times" or "good times," is commonly initiated by an advance in the prices or in the volume of demand for some one or more of the products that are extensively used in industry. It may also, though less commonly, arise from changes in the rate of interest. When this happens it is usually, if not invariably, accompanied by a somewhat general advance in prices. Indeed, in its primary incidence, such a movement may be said to run its course as a sequence of price phenomena turning about the earning capacity of business enterprises.

Since the modern industrial situation began to take form there have been two principal forms of credit transactions current in the usage of the business community for the purpose of investment—the old-fashioned loan, the usage of which has come down from an earlier day, and the stock share whereby funds are invested in a joint stock company or corporation. The latter is a credit instrument, so far as touches the management of

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the property represented, in that (in earlier usage at least) it effects a transfer of a given body of property from the hands of an owner who resigns discretion in its control to a board of directors who assume the management of it. In addition to these two methods of credit relation there has, during the modern industrial period, come into extensive use for business purposes a third class of expedients, viz., debentures of one form and another—bonds of various tenor, preferred stock, preference shares, etc., ranging, in point of technical character and degree of liability involved, from something approaching the nature of a bill of sale to something not readily distinguishable in effect from a personal note. The typical (latest and most highly specialized) instrument of this class is the preferred stock. This is in form a deed of ownership, and in effect an evidence of debt. It is typical of a somewhat comprehensive class of securities in use in the business community, in the respect that it ignores the distinction between capital and credit. In this respect, indeed, preferred stock, more adequately perhaps than any other instrument, reflects the nature of the "capital concept" current among up-to-date business-men who are engaged in the larger industrial affairs.

The part which debenture credit, nominal and virtual, plays in the financing of modern industrial corporations is very considerable, and the proportion which it bears in the capitalization of these corporations apparently grows larger as time passes and shrewder methods of business gain ground. In the field of the "industrials" proper, debenture credit has not until lately been employed with full effect. It seems to be from the corporation finance of American railway companies that business-men have learned the full use of an exhaustive debenture credit as an expedient for expanding business capital. It is not an expedient newly discovered, but its free use even in railway finance is relatively late. Wherever it prevails in an unmitigated form, as with some railway companies and latterly in many other industrial enterprises, it throws the capitalization of the business concerns affected by it into a peculiar, characteristically modern, position in relation to credit. When carried out thoroughly it places virtually the entire capital, comprising the whole of the material equipment, on a credit basis. Stock being issued by the use of such funds as may be needed to pay for printing, a road will be built, or an industrial plant established, by the use of funds drawn from the sale of bonds; preferred stock or similar debentures will then be issued, commonly of various denominations, to the full amount that the property will bear, and not infrequently somewhat in excess of what the property will bear. When the latter case occurs, the market quotations of the securities will, of course, roughly adjust the current effective capitalization to the run of the facts, whatever the nominal capitalization may be. The common stock in such a case represents "good-will," and in the later development usually nothing but "good-will." The material equipment is covered by credit instruments—debentures. Not infrequently the debentures cover appreciably more than the value of the material equipment, together with such property as useful patent rights or trade secrets; in such a case the good-

will is also, to some extent, covered by debentures, and so serves as virtual collateral for a credit extension which is incorporated in the business capital of the company. In the ideal case, where a corporation is financed with due perspicacity, there will be but an inappreciable proportion of the market value of the company's good-will left uncovered by debentures. In the case of a railway company, for instance, no more should be left uncovered by debentures than the value of the "franchise," and probably in most cases not that much actually is uncovered.

Whether capitalized good-will (including "franchise" if necessary) is to be rated as a credit extension is a nice question that can apparently be decided only on a legal technicality. In any case so much seems clear — that good-will is the nucleus of capitalization in modern corporation finance. In a well-financed, flourishing corporation good-will, indeed, constitutes the total assets after liabilities have been met, but the total remaining assets may not nearly equal the total market value of the company's good-will; that is to say, the material equipment (plant, etc.) of a shrewdly managed concern is hypothecated at least once, commonly more than once, and its immaterial properties (good-will), together with its evidences of indebtedness, may also to some extent be drawn into the hypothecation.[21]

What has just been said of the part borne by good-will and debentures in the capitalization of corporations should be taken in connection with what was said above (p. 9) as to the securities offered as collateral in procuring credit extension. The greater part of the securities used as collateral, and so coined into means of payment, are evidences of debt, at the first remove or farther from the physical basis, instruments of credit recording a previous credit extension.

In the earlier period of growth of this debenture financiering in industry, as, *e. g.*, in the railroad financiering of the third quarter of the nineteenth century, the process of expansion by means of debenture credit, in any given case, worked out gradually over a more or less extended period of time. But as the possibilities of this expedient have

[21] Any student who harks back to archaic methods of business organization for a norm of what capitalization should be will object that what is said above applies only in a case of gross overcapitalization or stock-watering. But the objection proceeds on obsolete premises. It supposes that the stock of a corporation must represent material wealth, in fact as well as in law. Such is not the case in fact, whatever may be held to be binding in law. The question of "stock-watering," "overcapitalization," and the like is scarcely pertinent in the case of a large industrial corporation, financed as the modern situation demands. Under modern circumstances the stock can scarcely fail to be all "water," unless in a small concern or under incompetent management. Nothing but "water" — under the name of good-will — belongs in the common stock; whereas the preferred stock, which represents material equipment, is a debenture. "Overcapitalization," on the other hand, if it means anything under modern business conditions, must mean overcapitalization as compared with earning capacity, for there is nothing else pertinent to compare with; and earning capacity fluctuates, while the basis (interest rates) on which the earning capacity is to be capitalized also fluctuates independently.

In effect, the adjustment of capitalization to earning capacity is taken care of by the market quotations of stock and other securities; and no other method of adjustment is of any avail, because capitalization is a question of value, and market quotations are the last resort in questions of value. The value of any stock listed on the exchange, or otherwise subject to purchase and sale, fluctuates from time to time; which comes to the same thing as saying that the effectual capitalization of the concern, represented by the securities quoted, fluctuates from time to time. It fluctuates more or less, sometimes very slowly, but always at least so much as to compensate the long-period fluctuations of discount rates in the money market; which means that the purchase price of a given fractional interest in the corporation as a going concern fluctuates so as to equate it with the capitalized value of its putative earning capacity, computed at current rates of discount and allowing for risks.

grown familiar to the business community the time consumed in perfecting the structure of debentures in each case has been reduced; until it is now not unusual to perfect the whole organization, with its load of debentures, at the inception of a corporate enterprise. In such a case, when a corporation starts with a fully organized capital and debt, the owners of the concern are also its creditors — they are, at the start, the holders of both common and preferred stock, and probably also of the bonds of the company — so adding another increment of confusion to the relation between modern capital and credit, as seen from the old-fashioned position as to what capitalization and its basis should be.

This syncopated process of expanding capital by the help of credit financiering, however, is seen at its best in the latter-day reorganizations and coalitions of industrial corporations; and as this class of transactions also illustrate another interesting and characteristically modern feature of credit financiering, the whole matter may best be set out in the way of a sketch of what takes place in a case of coalition of industrial corporations on a large scale, such as recent industrial history has made familiar.

The avowed end of these latter-day business coalitions is economy of production and sale and an amicable regulation of intercorporate relations. So far as bears on the functioning of credit in the attendant business transactions, the presence or absence of these purposes, of course, does not affect the course of events or the outcome. These avowed incentives do not touch the credit operations involved. On the other hand, the need of large credit in consummating the deal, as well as the presumptive gains to be drawn from the credit relations involved, offer inducements of their own. Inducements of this kind seem to have been quite effective in bringing on some of the recent operations of this class. Credit operations come into these transactions mainly at two points: in the "financing" of the deal, and in the augmentation of debentures; and at both these points there is a chance of gain — on the one hand to the promoter (organizer) and the credit house which finances the operation, and on the other hand to the stockholders. The gain which accrues to the two former is the more unequivocal, and this seems in some cases to be the dominant incentive to effect the reorganization. The whole operation of reorganization may, therefore, best be taken up from the point of view of the promoter, who is the prime mover in the matter.

A reorganization of industrial concerns on a large scale, such as are not uncommon at the present time, involves a campaign of business strategy, engaging, it is said, abilities and responsibilities of a very high order. Such a campaign of business strategy, as carried out by the modern captains of industry, runs, in the main, on credit relations, in the way of financial backing, options, purchases, leases, and the issuance and transfer of stock and debentures. In order to carry through these large "deals," in the first place, a very substantial basis of credit is required, either in the hands of the promoter (organizer) himself or in the hands of a credit house which "finances" the organization for him.

The strategic use of credit here involved is, in effect, very different from the use

of loan credit in investments. In transactions of this class the time element, the credit period, is an inconspicuous factor at the most; it plays a very subordinate and uncertain part. The volume of credit at the disposal of a given strategist is altogether the decisive point, as contrasted with the lapse of time over which the incident credit extension may run. The usefulness of the credit extension is not measured in terms of time, nor are the gains which accrue to the creditor in the case proportioned to the length of time involved.

This follows from the peculiar nature of the work which these great captains of industry have in hand, and more remotely, therefore, from the peculiar character of the earnings which induce them to undertake the work. Their work, though it is of the gravest consequence to industry, is not industrial business, in that it is not occupied with anything like the conduct of a continuous industrial process. Nor is it of the same class as commercial business, or even banking business, in that there is no investment in a continued sequence of transactions. It differs also from stock and produce speculation, as that is currently conceived,[22] in that it does not depend on the lapse of time to bring a change of circumstances; although it has many points of similarity with stock speculation. In its details this work resembles commercial business, in that it has to do with bargaining; but so does all business, and this peculiar work of the trust promoter differs from mercantile business in the absence of continuity. Perhaps its nearest business analogue is the work of the real-estate agent.

The volume of credit involved is commonly very great; whereas the credit period, the lapse of time, is a negligible factor. Indeed, if an appreciable credit period intervenes, it is a fortuitous circumstance. The time element in these credit operations is in abeyance, or, at the best, it is an indeterminate magnitude. Hence the formula shown above (p. 6, n. 9) is practically not applicable to business of this class. So far as bears upon the credit operations involved in these transactions of the large finance, the question about which interest turns is almost exclusively the volume of the turnover; its velocity is a negligible quantity.

Such strategic use of credit is not confined to the business of making or marring industrial coalitions. It is habitually to be met with in connection with stock (and produce) speculation, and ramifications of the like use of credit run through the dealings of the business community at large in many directions; but it rarely attains the magnitude in the service of stock speculation which it reaches in the campaign incident to a trust-making deal. The form of credit extension employed in these transactions with indeterminate time also varies. The older and more familiar form is that of the call loan, together with the stock-exchange transactions for which call loans are largely used. Here the time element is present, especially in form; but the credit period is somewhat indeterminate, as is also the gain that accrues to the creditor from the transaction; although the creditor's gain here continues to be counted at a

[22] See, *e. g.*, EMERY, *Speculation on the Stock and Produce Exchanges of the United States*, chap. iv; HADLEY, *Economics*, chap. iv.

(variable) rate per cent. per time-unit. The strategic use of credit in the affairs of the large business finance has much in common with the call loan. Indeed, the call loan in set form is often resorted to as a valuable auxiliary expedient, although the larger arrangements for financing such a campaign of business strategy are not usually put in the form of a call loan. The arrangement between the promoter and the financial agent is commonly based on a less specific stipulation as to collateral, and the payment for credit obtained takes even less, if any, account of the length of the credit period. In financing a campaign of coalition the credit house that acts as financial agent assumes, in effect, an even less determinate credit responsibility. Here, too, the gains accruing to the creditor are no longer, even nominally, counted per cent. per time-unit, but rather in the form of a bonus based mainly on the volume of the turnover, with some variable degree of regard to other circumstances.

Answering to the essentially timeless character of the gains accruing to the financial agent, the earnings of the promoter engaged in transactions of this class are also not of the nature of profits per cent. per time-unit, but rather a bonus which commonly falls immediately into the shape of a share in the capitalization of the newly organized concern. Much of this increment of capital, or capitalization, that goes to the promoter is scarcely distinguishable from an increase of the liabilities of the new corporation (*e. g.*, preferred stock); and the remainder (*e. g.*, common stock) has also some of the characteristics of a credit instrument. It is worth noting that the cost of reorganization, including the bonus of the promoter and the financial agent, is, in the common run of cases, added to the capitalization; that is to say, as near as this class of transactions may be spoken of in terms borrowed from the old-fashioned business terminology, what answers to the "interest" due the creditor on the credit extension involved is incorporated in the "capital" of the debtor, without circumlocution or faltering.

The line between credit and capital, or between debt and property, in the values handled throughout these strategic operations of coalition, remains somewhat uncertain. Indeed, the old-fashioned concepts of "debt" and "property," or "liabilities" and "assets," are not fairly applicable to the facts of the case — except, of course, in the way of a technical legal distinction. The old-fashioned law and legal presumptions and the new-fashioned facts and usages are parting company, at this point as at some others in the affairs of modern business.

When such a large transaction in the reorganization of industrial concerns has been completed, the values left in the hands of the former owners of the concerns merged in the new coalition are only to a fractional and uncertain extent of the nature of material goods. They are in large part debentures, and much of the remainder is of a doubtful character. A large proportion of the nominal collective capital resulting in such cases is made up of the capitalized good-will of the concerns merged. This good-will is chiefly a capitalization of the differential advantages possessed by the several concerns as competitors in business, and has for the most part no use for other

than competitive business ends. It is for the most part of no aggregate industrial effect. But the differential advantages possessed by business concerns as competitors disappear when the competitors are merged, in the degree in which they cease to compete with rival bidders for the same range of business. As an element in the capitalization of the new corporation, therefore, this defunct good-will has a value analogous to the present value of the competitive merits of last year's fashions in bonnets. To this aggregate good-will of the consolidated concerns (which in the nature of things can make only an imaginary aggregate) is added something in the way of an increment of good-will belonging to the new corporation as such; and the whole is then represented, approximately, by the common stock issued. The nominal capital of the concerns merged (in good part based on capitalized good-will) is aggregated, after an appraisement which commonly equalizes the proportion of each by increasing the nominal shares of all. This aggregate is covered with common and preferred stock, chiefly preferred, which is a class of debentures issued under the form of capital. The stock, common and preferred, goes to the owners of the concerns merged, and to the promoter and the financial agent, as already indicated above. In case bonds are issued, these likewise go to the former owners, in so far as they do not replace outstanding liabilities of the concerns merged.

"Capital" in modern business usage means "capitalized presumable earning capacity," and in this capitalization is comprised the usufruct of whatever credit extension the given business concern's industrial equipment and good-will will support. By consequence the effectual capitalization (shown by the market quotations) as contrasted with the nominal capital (shown by the par value of the stock of all descriptions) fluctuates with the fluctuations of the prevalent presumption as to the solvency and earning capacity of the concern and the good faith of its governing board.

When the modern captain of industry reorganizes and consolidates a given range of industrial business concerns, therefore, and gives them a collective form and name as an up-to-date corporation, the completed operation presents, in syncopated form and within a negligible lapse of time, all that intricate process of cumulative augmentation of business capital through the use of credit which otherwise may come gradually in the course of business competition. At the same time it involves a redistribution of the ownership of the property engaged in industry, such as otherwise occurs at a period of liquidation. The result is, of course, not the same at all points, but the equivalence between the two methods of expanding business capital and distributing the gains is close in some respects. The resemblances and the differences between the two processes, so far as relates to credit, are worth noticing. The trust-maker is in some respects a substitute for a commercial crisis.

When credit extension is used competitively in the old-fashioned way for increasing the business of competing concerns, as spoken of above (pp. 6–8, 12–14), the expansion of business capital through credit operations occupies a period of some

duration, commonly running over an interval recognized as a period of speculative advance or "rising prosperity." The expansion of capitalized values then takes place more or less gradually through a competitive enhancement of the prices of industrial equipment and the like. The creditors then commonly come in for their resulting share in the industrial equipment only at the period of liquidation, with its attendant shrinkage of values. In the timeless credit transactions involved in the modern reorganizations of industrial business, on the other hand, the creditors' claim takes effect without an appreciable lapse of time, a liquidation, or a shrinkage of values.

The whole process of credit extension, augmentation of business capital, and distribution of proceeds is reduced to a very simple form. The credit extension is effected in two main forms: (*a*) the "financing" undertaken by the credit house in conjunction with the promoter, and (*b*) the issuance of debentures. The bonus of the financing house and promoter, as well as the debentures, are all included in the recapitalization, together with an increment of good-will and any other incidental items of expense or presumptive gain. The resulting collective capitalization (assets and liabilities) is then distributed to the several parties concerned in the transaction. The outcome, so far as touches the present argument, being that when the operation is completed the ownership of the recapitalized industrial equipment, with whatever other property is involved, appears distributed between the former owners, the promoter, and the credit house which financed the operation. But, by virtue of the debentures distributed, the former owners, together with the other parties named, appear in the rôle of creditors of the new corporation as well as owners of it; they commonly come out of the transaction with large holdings of preferred stock or similar debentures at the same time that they hold the common stock. The preferred stock, of course, is presently disposed of by the large holders to outside parties. The material equipment is then practically the same as it was before; the business capital has been augmented to comprise such proportion of the good-will of the several concerns incorporated as had not previously been capitalized and hypothecated, together with the good-will imputed to the new corporation and the debentures which these items of wealth will float.

The effective capitalization resulting is, of course, indicated by the market quotations of the securities issued rather than by their face value. The value of the corporation's business capital so indicated need suffer no permanent shrinkage; it will suffer none if the monopoly advantage (good-will) of the new corporation is sufficient to keep its earning capacity up to the rate on which the capitalization is based.

It appears, then, that in the affairs of latter-day business, as shown by modern corporation finance, capital and credit extension are not always distinguishable in fact, nor does there appear to be a decisive business reason why they should be distinguished. "Capital" means "capitalized putative earning capacity," expressed in terms of value, and this capitalization comprises the use of all feasible credit extension. The business capital of a modern corporation is a magnitude that fluctuates from day

to day; and in the fluctuations of its debentures the magnitude of its credit extension also fluctuates from day to day with the course of the market. The precise pecuniary magnitude of the business community's invested wealth, as well as the aggregate amount of the community's indebtedness, depends from hour to hour on the quotations of the stock exchange; and it rarely happens that it remains nearly the same in the aggregate from one week's end to the next. Both capital and credit, therefore, vary from hour to hour and, within narrow limits, from place to place. The magnitude and fluctuations of business capital—"capital" in the sense in which that term is used in business affairs—of course stands in no hard and fast relation to the material magnitude of the industrial equipment; nor do variations in the magnitude of the business capital reflect variations in the magnitude or the efficiency of the industrial equipment in any but the loosest and most indecisive manner. So also, and for the same reason, the magnitude and the variations of the aggregate credit afloat at a given time bear, at the most, but a remote, indirect, and shifty relation to the aggregate of material wealth and the changes to which it is subject. All this applies with peculiar cogency wherever and in so far as industry and business are carried on by modern expedients and in due contact with the modern market.

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